

691.3

Massey

1919  
CATALOG

*General Information on*

**MASSEY**  
**Factory-Made**  
**REINFORCED**  
**CONCRETE**  
**PRODUCTS**



**MASSEY CONCRETE PRODUCTS**  
**CORPORATION**

**C. F. MASSEY COMPANY**  
**UNIVERSAL CONCRETE PRODUCTS CO**  
**CANADIAN CONCRETE PRODUCTS CO Ltd.**

**Peoples Gas Building      CHICAGO**

# Massey Factory-Made Concrete Products





## Massey Factory-Made Concrete Products

labor and standardized production are some of the factors which make our products superior.

In addition, factory facilities make it possible for us to keep standard products in stock ready for shipment and installation. This eliminates delay which frequently occurs when the old method of field construction is relied upon.

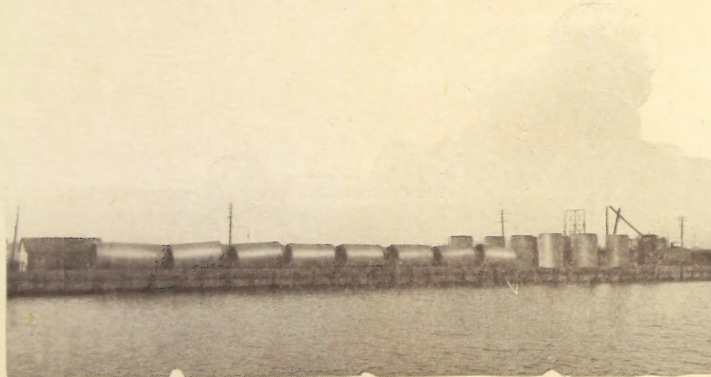
Here is a partial list of the concrete products manufactured by us:

|                    |                                |                          |
|--------------------|--------------------------------|--------------------------|
| Culvert Pipe       | Meter Boxes                    | Pipe Carrier Foundations |
| *Telegraph Poles   | Smoke Jacks                    | Cattle Passes            |
| Battery Wells      | *Ornamental Lighting Standards | Transformer Stations     |
| Manholes           | Crossing Planks                | Relay Posts              |
| Telephone Booths   | Cable Posts                    | Roof Slabs               |
| Piling             | Oil Houses                     | Mile Posts               |
| Sewer Pipe         | Pressure Pipe                  | Junction Boxes           |
| Switchmen's Houses | Hydrant Boxes                  | Station Houses           |
| Battery Boxes      | Markers for Railroads          | Trunking                 |
| Trestle Slabs      | Cable Test Houses              |                          |
| Fence Posts        |                                |                          |

\*Made by the Centrifugal process.

We are prepared to cooperate to the fullest extent in meeting your requirements for concrete products. Consult with us as to the economy possible through proper adaptation of standard units before determining on a special design.

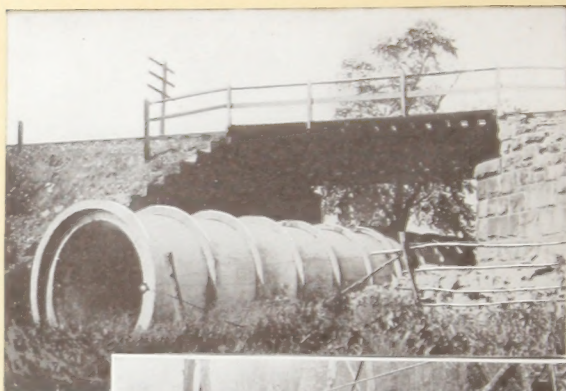
*Massey Concrete Products Corporation*



### Massey Standard Culvert and Sewer Pipe

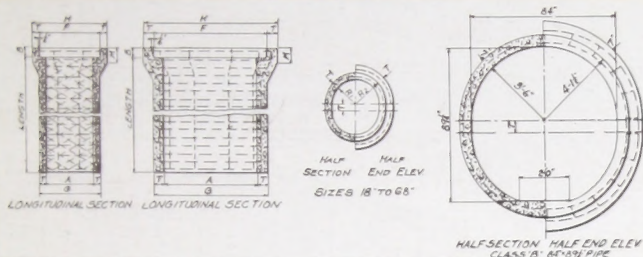
**R**EINFORCED concrete pipe of our design has proved itself the most popular form of construction for a wide variety of uses, including railway and highway culverts and drains and sewers of all kinds.

The principal points of superiority are its low cost, ease of installation, absence of maintenance expense, and long life due to the elimination of hazard from fire, corrosion, electrolysis, etc. The reinforcement is placed in a single line located in the region of tension throughout.





# Massey Factory-Made Concrete Products



| SIZE  | E  | A      | G       | H        | T     | M | B | R <sub>1</sub> | R <sub>2</sub> | F       | WATER AREA | EXCESS RING AREA OVER CHD | LENGTH OF PIPE | WEIGHT PER FOOT |
|-------|----|--------|---------|----------|-------|---|---|----------------|----------------|---------|------------|---------------------------|----------------|-----------------|
| 18x20 | 18 | 20 1/2 | 2 1/8   | 2 7/8    | 2 1/2 | 6 | 4 | 0 9/16         | 1 0            | 2 2 1/2 | 2.05       | 17.6                      | 8'-0"          | 185             |
| 24x27 | 24 | 27     | 2 9/16  | 3 1/4    | 3     | 6 | 4 | 1 0            | 1 3/8          | 2 10    | 3.64       | 15.5                      | 8'-0"          | 290             |
| 30x33 | 30 | 33 1/2 | 3 1/4   | 4 0 1/4  | 3 1/2 | 6 | 4 | 1 3/8          | 1 7/8          | 3 5 1/2 | 5.64       | 14.9                      | 8'-0"          | 415             |
| 36x40 | 36 | 40     | 4 0     | 4 9/16   | 4     | 6 | 4 | 1 6            | 2 10 1/8       | 4 1     | 8.06       | 14.0                      | 8'-0"          | 562             |
| 42x46 | 42 | 46 1/2 | 4 3/4   | 5 3/8    | 4     | 6 | 4 | 1 7/8          | 2 11 1/8       | 4 7     | 10.71      | 11.3                      | 8'-0"          | 645             |
| 48x52 | 48 | 52 1/2 | 5 0 1/4 | 6 10 1/8 | 4 1/2 | 6 | 4 | 2 0            | 2 4 1/8        | 5 1 1/2 | 13.77      | 11.0                      | 8'-0"          | 815             |
| 60x65 | 60 | 65 1/2 | 6 3/8   | 7 2 1/8  | 5     | 8 | 5 | 2 4            | 2 11 1/8       | 6 4     | 21.72      | 10.6                      | 8'-0"          | 1184            |
| 66x72 | 66 | 72 1/2 | 6 5/8   | 8 3/8    | 6     | 8 | 5 | 2 10           | 3 4 1/8        | 7 3     | 28.05      | 11.2                      | 8'-0"          | 1430            |
| 84x89 | 84 | 89 1/2 | 8 7/8   | 10 0     | 7     | 8 | 7 | 3 6            | 4 1 1/8        | 8 10    | 42.42      | 10.8                      | 8'-0"          | 2335            |

## Culvert Pipe

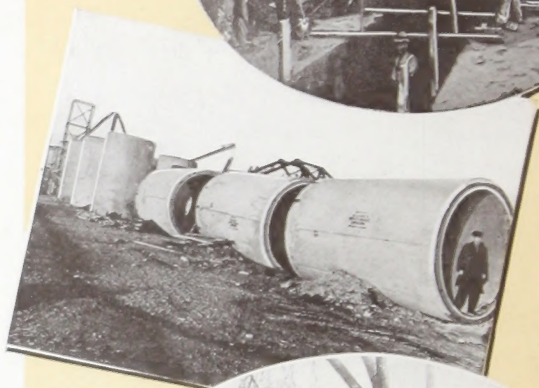
Massey Reinforced Concrete Pipe with Bell and Spigot Joint,  
18-84 in. Diam.

This pipe is built in three standard classes. The earliest and most widely known form is the Class "B" pipe which is the standard pipe for railway culverts and cattle passes.

This pipe is favored for railway use on account of the ease with which a culvert can be put in place, thereby eliminating costly interruptions to train service. Its use also has the important advantage of eliminating the expensive field mixer plant with the necessary material storage, chutes or wheelbarrow runways and a big gang. In one of the illustrations on the opposite page, a concrete culvert is being laid on a new line by four men with a chain hoist.

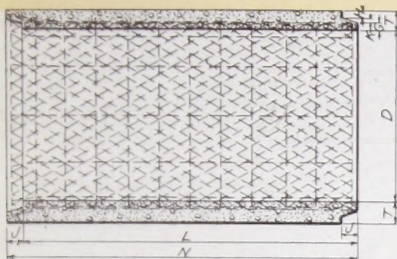
In addition to the Class "B" we are prepared to furnish Class "A" and Class "AA" pipe. These classes may be used where conditions warrant for electric railway culverts, highway culverts and sewers. The three classes mentioned above are available in sizes ranging from

## Massey Factory-Made Concrete Products

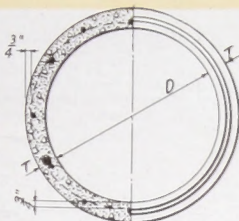




# Massey Factory-Made Concrete Products



LONGITUDINAL SECTION



HALF SECTION HALF END ELEV

| SIZE OF PIPE | T      | J      | G      | H      | K      | N         | L     | WATER AREA | WT PER FOOT |
|--------------|--------|--------|--------|--------|--------|-----------|-------|------------|-------------|
| 12"          | 2"     | 1 1/2" | 1 1/2" | 1 1/2" | 1"     | 4' 1 1/2" | 4'-0" | .79"       | 85"         |
| 15"          | 2 1/2" | 2"     | 1 1/2" | 1 1/2" | 1"     | 4'-2"     | 4'-0" | 1.25"      | 122"        |
| 18"          | 2 1/2" | 2 1/2" | 1"     | 1 1/2" | 1"     | 4'-2 1/2" | 4'-0" | 1.77"      | 167"        |
| 24"          | 3"     | 2 1/2" | 1 1/2" | 1 1/2" | 1"     | 4'-2 1/2" | 4'-0" | 3.14"      | 254"        |
| 30"          | 3 1/2" | 3 1/2" | 1 1/2" | 1 1/2" | 1"     | 4'-3 1/2" | 4'-0" | 4.91"      | 368"        |
| 36"          | 4"     | 3 1/2" | 1 1/2" | 1 1/2" | 1"     | 4'-3 1/2" | 4'-0" | 7.07"      | 503"        |
| 42"          | 4 1/2" | 3 1/2" | 1 1/2" | 2 1/2" | 1 1/2" | 4'-3 1/2" | 4'-0" | 9.62"      | 657"        |
| 48"          | 5"     | 4 1/2" | 2"     | 2 1/2" | 2"     | 4'-4 1/2" | 4'-0" | 12.57"     | 832"        |
| 54"          | 5 1/2" | 4 1/2" | 2 1/2" | 2 1/2" | 2"     | 4'-4 1/2" | 4'-0" | 15.90"     | 1028"       |
| 60"          | 6"     | 5 1/2" | 2 1/2" | 2 1/2" | 2"     | 4'-5 1/2" | 4'-0" | 19.64"     | 1244"       |
| 66"          | 6 1/2" | 5 1/2" | 2 1/2" | 3 1/2" | 2 1/2" | 4'-5 1/2" | 4'-0" | 23.76"     | 1480"       |

## Sewer Pipe

Massey Reinforced Concrete Pipe with Tongue and Groove Joint, 12-66 in. Diameter

12 inches to 84 inches in diameter, the sizes up to 48 inches being made in 8-foot lengths and the larger sizes in 6-foot lengths.

The detailed dimensions and weights of the various classes and sizes are shown in the accompanying drawings and tables.

For highway culvert work our concrete pipe has important advantages. It is low in first cost, and requires very little time to install, as the trench need not be kept open longer than the time required to fill it.

Call on us for full information regarding any problems in the use of culverts or sewer pipe which you may have under consideration. We will co-operate gladly.

# Massey Factory-Made Concrete Products





### Massey Concrete Houses



**P**ORTABLE concrete houses can be adapted to a wide variety of uses, such as telephone booths, switchmen's houses, oil houses, cable test houses, station houses and transformer stations. They are cast in one piece with adequate reinforcement. They can readily be picked up and moved to any desired location.

These portable concrete houses are comparatively low in cost, permanent, practically indestructible, and require little or no maintenance. They are attractive in appearance, being finished in a natural cement color on the outside, and can be furnished with a special white acid-proof paint on the inside if desired.

The illustrations show a few of the standard designs with their drawing numbers. There are in addition other standard sizes and styles enabling you to make a selection to meet any usual requirement. Write for full information.



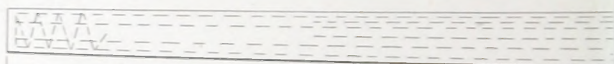
# Massey Factory-Made Concrete Products



## Hollow Reinforced

THE improved centrifugal reinforced concrete production of poles possible with this mixture of concrete ingredients placed in metal forms and driven in a special machine drives the mixture against the walls making a hard compact density and with an ultimate strength greater than that obtainable by ordinary methods.

These poles are hollow, reducing the weight so easy to ship and install. The reinforcing and the high strength give them extreme strength.



LENGTH

| LENGTH | GROUND LINE TO BUTT | CLASS 4000        |                    |             | CLASS 53000       |                    |             |
|--------|---------------------|-------------------|--------------------|-------------|-------------------|--------------------|-------------|
|        |                     | d                 | D                  | APPROX WGT. | d                 | D                  | APPROX WGT. |
| 20'-0" | 4'-0"               | 8 $\frac{1}{2}$ " | 13 $\frac{1}{2}$ " | 1800*       | 7 $\frac{1}{2}$ " | 12 $\frac{1}{2}$ " | 1400*       |
| 25'-0" | 5'-0"               | 8 $\frac{1}{2}$ " | 14 $\frac{1}{2}$ " | 2415*       | 7 $\frac{1}{2}$ " | 13 $\frac{1}{2}$ " | 1980*       |
| 30'-0" | 5'-6"               | 8 $\frac{1}{2}$ " | 15 $\frac{1}{2}$ " | 3200*       | 7 $\frac{1}{2}$ " | 15 $\frac{1}{2}$ " | 2590*       |
| 35'-0" | 6'-0"               | 8 $\frac{1}{2}$ " | 17"                | 4080*       | 7 $\frac{1}{2}$ " | 16 $\frac{1}{2}$ " | 3325*       |
| 40'-0" | 6'-6"               | 8 $\frac{1}{2}$ " | 18 $\frac{1}{2}$ " | 4800*       | 7 $\frac{1}{2}$ " | 17 $\frac{1}{2}$ " | 4150*       |
| 45'-0" | 7'-0"               | 8 $\frac{1}{2}$ " | 19 $\frac{1}{2}$ " | 6525*       | 7 $\frac{1}{2}$ " | 18 $\frac{1}{2}$ " | 5100*       |

POLES ARE GUARANTEED TO WITHSTAND A PULL IN POUNDS EQUAL TO THEIR CLASS



# Massey Factory-Made Concrete Products

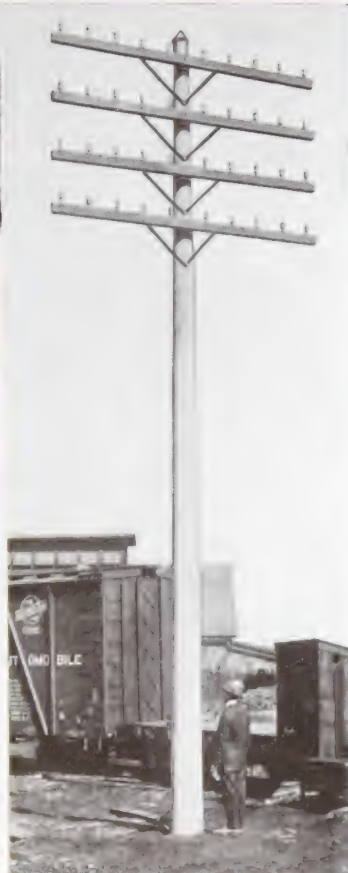


## Concrete Poles

The process for manufacturing concrete poles makes possible the use of unusual qualities. A concrete pole, carefully graded, is a product that is revolved at high speed.

The centrifugal force acts on the inside of the forms, creating a waterproof mass of great strength far greater than ordinary methods.

Making them flexible and durable, they are easy to place. The accuracy of placing the rebar and the concrete give



| CLASS 2000 |            | CLASS 1500 |        |            | CLASS 1000 |        |          |
|------------|------------|------------|--------|------------|------------|--------|----------|
| D          | APPROX WGT | d          | D      | APPROX WGT | d          | D      | APPROX W |
| 12         | 1230*      | 6 1/2      | 11 1/2 | 1150*      | 5 1/2      | 10 1/2 | 875*     |
| 13 1/2     | 1735*      | 6 1/2      | 12 1/2 | 1530*      | 5 1/2      | 12     | 1200*    |
| 14 1/2     | 2305*      | 6 1/2      | 13 1/2 | 2050*      | 5 1/2      | 13 1/2 | 1575*    |
| 15 1/2     | 2980*      | 6 1/2      | 15 1/2 | 2660*      | 5 1/2      | 14 1/2 | 1995*    |
| 17         | 3730*      | 6 1/2      | 16 1/2 | 3425*      | 5 1/2      | 15 1/2 | 2340*    |
| 18 1/2     | 4640*      | 6 1/2      | 17 1/2 | 4150*      | 5 1/2      | 17     | 2940*    |

\* DIMENSIONS WHEN APPLIED 2'-0" FROM TOP AND BUTT BURIED IN GROUND AS INDICATED.

## Massey Factory-Made Concrete Products

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## Massey Factory-Made Concrete Products

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For telegraph and transmission lines it is important to note that the capacity of a line can be greatly increased by the use of these poles without reducing the factor of safety. Cross arms can be applied by bolting in gains on the pole and bracing them in the same manner as on a wooden pole.

Concrete trolley poles of the Massey design are low in first cost, they are not affected by electrolysis and require no painting. A most attractive finish and absolutely durable construction are provided in the ornamental lighting pole. In some cases it is feasible to combine the railway and lighting poles with obvious economy.

The data which we have on experimental tests of these poles will be sent to any one interested in pole construction.



# Massey Factory-Made Concrete Products





### Massey Concrete Battery Wells and Boxes



**M**ASSEY concrete battery wells are now accepted as standard on most of the large railways. They are less expensive than other efficient means of housing electric equipment and together with the Massey battery boxes, cable posts, etc. they form a system which is easily and quickly installed, absolutely permanent, and which requires practically no maintenance.

Battery wells, in common with other products manufactured by us, are covered by patents and we are in position to guarantee our customers free and unrestricted use of these products and to assure them protection from litigation.

Battery wells are made to fit practically any requirements. Consult us for suggestions concerning their most economical use.



### Massey Reinforced Concrete Bridge Slabs and Piling



**R**AILWAY engineers are fast coming to a full realization of the importance of replacing their wooden and metal structures with reinforced concrete as rapidly as they require renewal. This eliminates repainting, repairing, and postpones renewal indefinitely.

The use of factory-made concrete bridge slabs, piling, and trestle bents is more economical than field work and provides a stronger, better structure. The first cost is lower and the amount of labor required for construction is materially reduced.

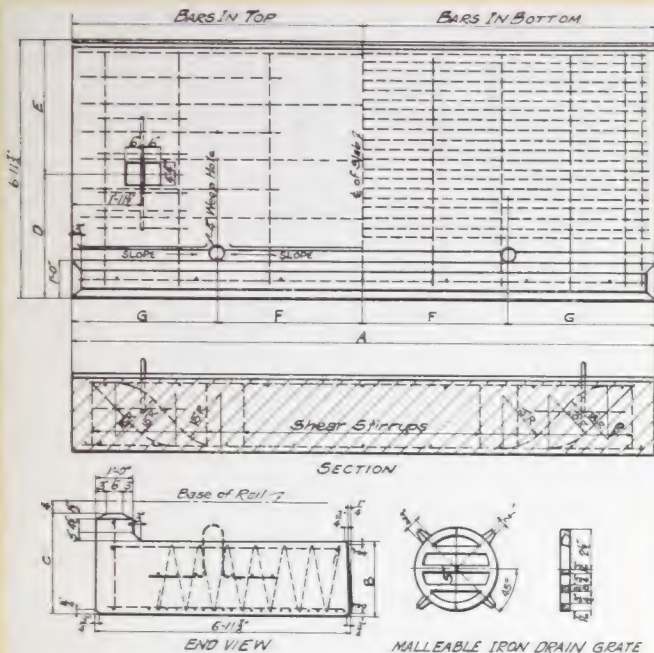
Factory-made bridge units are produced under ideal conditions for making reinforced concrete. This eliminates practically the only valid objection that has ever been raised to the use of concrete construction, the difficulty of getting uniform quality in every batch of concrete and the correct placing of reinforcement.

In addition to the high quality of our bridge units, the time and labor required to erect a concrete bridge of the factory-made type is materially less than for any other type of permanent structure.





# Massey Factory-Made Concrete Products



| BENTS       | A       | B         | C         | D         | E         | F     | G          | WT. OF ONE SLAB |
|-------------|---------|-----------|-----------|-----------|-----------|-------|------------|-----------------|
| 10'-0" CTRS | 9'-11"  | 1'-6 1/2" | 2'-2 1/2" | 3'-3 1/2" | 3'-8"     | 2'-6" | 2'-5 1/2"  | 17,000 Lbs      |
| 12'-0" CTRS | 11'-11" | 1'-8"     | 2'-4"     | 3'-4"     | 3'-7 1/2" | 3'-0" | 2'-11 1/2" | 21,700 Lbs      |
| 14'-0" CTRS | 13'-11" | 1'-10"    | 2'-6"     | 3'-6"     | 3'-7 1/2" | 3'-0" | 3'-11 1/2" | 27,700 Lbs      |
| 16'-0" CTRS | 15'-11" | 2'-1"     | 2'-9"     | 3'-7 1/2" | 3'-7 1/2" | 4'-0" | 3'-11 1/2" | 36,000 Lbs      |
| 18'-0" CTRS | 17'-11" | 2'-4"     | 3'-0"     | 3'-4 1/2" | 5'-7 1/2" | 4'-6" | 4'-5 1/2"  | 45,000 Lbs      |
| 20'-0" CTRS | 19'-11" | 2'-10"    | 3'-4"     | 3'-4 1/2" | 5'-7 1/2" | 5'-0" | 4'-11"     | 60,500 Lbs      |

LOADING: COOPERS E-60-IMPACT 50%  
 CONCRETE STRESSES  
 COMPRESSION 650"  
 SHEAR 40" & 90"  
 BOND 100"  
 STEEL STRESS  
 TENSION 16000"

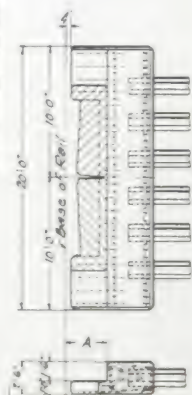
The standard Massey bridge slab is designed for Cooper's E-60 loading and can be furnished in lengths up to 24 ft. The use of these slabs is not confined to pile trestle construction. They can be applied equally well on pier trestles and culverts. We have developed a lighter design for the ballasted floor of steel bridges which is also applicable for the floor of concrete arch bridges, where the slabs are supported on the spandrel walls. These slabs are easily handled

# Massey Factory-Made Concrete Products

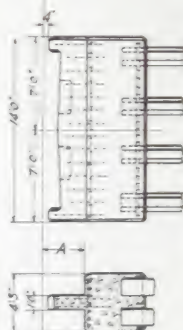


TYPICAL CONCRETE PILE TRESTLE

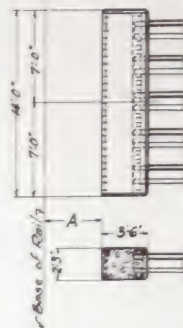
| LENGTH OF SUB<br>A | 10'       | 12'   | 14'    | 16'   | 18'   | 20'    |
|--------------------|-----------|-------|--------|-------|-------|--------|
|                    | 2' 6 1/2" | 2' 8" | 2' 10" | 3' 1" | 3' 4" | 3' 10" |



END BENT



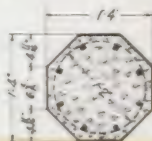
ANCHOR BENT



INTERMEDIATE BENT

Pile to be connected with third bent of this row and to  
continue further along the existing trestling line.

These spaced 8' apart for 8' each area of this row.



| LENGTH OF PILE | WEIGHT PER FT. |
|----------------|----------------|
| 20 TO 25 FT    | 225 Lbs        |
| 26 TO 30 FT    | 227 Lbs        |
| 31 TO 35 FT    | 228 Lbs        |
| 36 TO 40 FT    | 230 Lbs        |
| 41 TO 45 FT    | 235 Lbs        |

Only 2 ft. in more  
than 10 ft. in less

LENGTH OF PILE

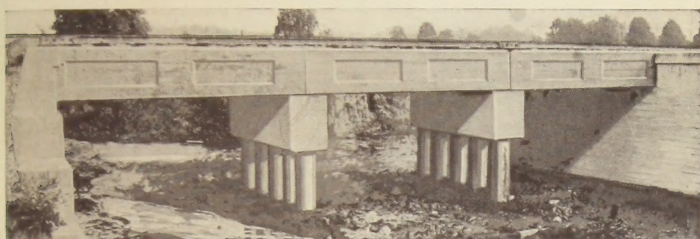
These spaced about 8' apart  
except as noted above

LENGTH OF PILE



## Massey Factory-Made Concrete Products

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by a derrick, making installation rapid and labor costs low. A small gang can do this work, which is an important factor.

Massey reinforced concrete piling is being extensively used as standard construction on many railways and is being regularly accepted by the United States government. Its use produces a very economical trestle construction. It is also in wide use as foundation piling and is equally advantageous in this field. The un-retouched photograph on page 18 demonstrates that these piles can be driven without brooming.

Send for complete information on Massey factory-made bridge units. We can offer suggestions that will mean a more economical bridge budget in the future.





## Shipping Facilities

The wide distribution of our manufacturing plants and storage yards and their location at advantageous shipping centers, enables us to furnish products at convenient f. o. b. points, saving the purchaser time on deliveries and greatly reducing transportation costs.

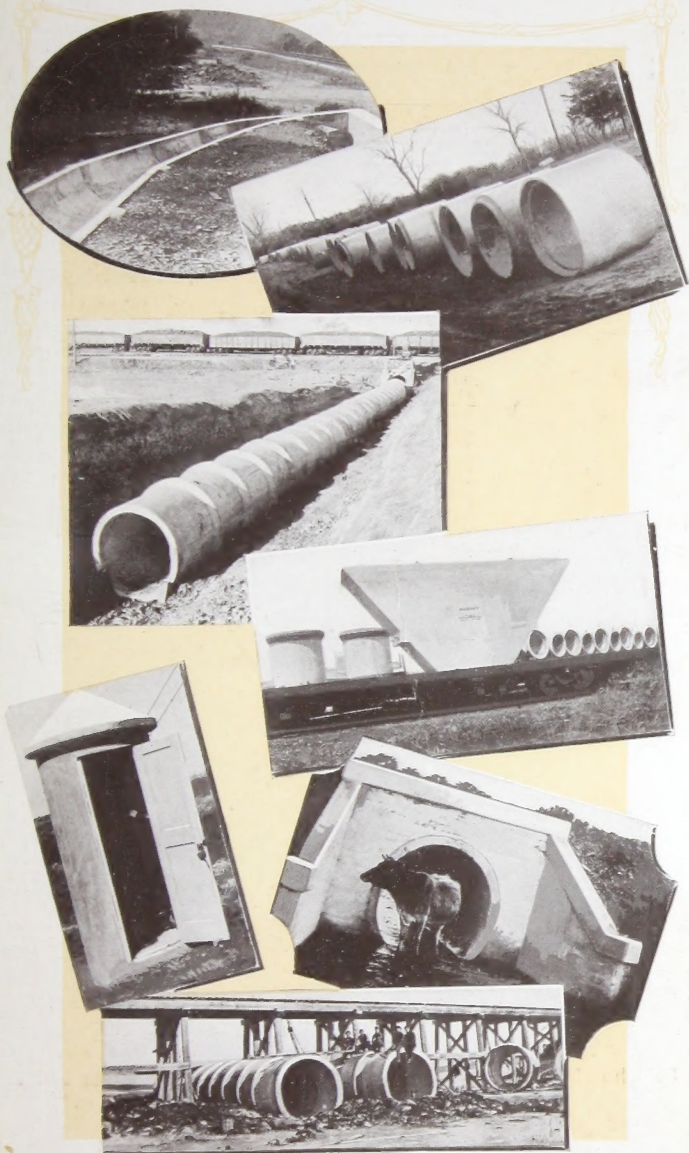
Plants are located at Newark, N. J., Pittsburgh, Pa., Columbia, S. C., Chatham, Ont., Minneapolis, Minn., Clearing (Chicago), Ill., Meridian, Miss., Dallas, Tex., Kansas City, Kan., Los Angeles, Cal., Spokane, Wash., Memphis, Tenn., and Milwaukee, Wis.

For any further information address the general office, Massey Concrete Products Corporation, Peoples Gas Building, Chicago, Ill.





## Massey Factory-Made Concrete Products





*Factory-Made*  
*Reinforced Concrete*  
*for Economy of*  
*Construction,*  
*Permanence, and*  
*Elimination of*  
*Maintenance.*

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